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InfoDomain

INFORMATION SUPERIORITY FOR THE WARFIGHTER

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COVER: Command Center personnel aboard *USS Bohomme Richard* (LHD 6) view streaming video from a Predator B surveillance aircraft during sea trial event Trident Warrior '06 off the coast of San Diego.

Photo by IS2 Darryl Nicholson.

Photo Illustration by Mr. Michael J. Morris.



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InfoDomain is the professional journal of Naval Information Warfare that promotes the advancement of Information Warfare through an open exchange of better practices, tactics, current strategies and future strategies in order to meet the global challenges of the information warfare domain.

Information contained in *InfoDomain* does not necessarily reflect the official views of the U.S. Government, the Department of Defense, or the Department of the Navy. Editorial content is prepared by the Public Affairs Office of Naval Network Warfare Command.

Articles for publication in *InfoDomain* should be submitted through the appropriate command representative. Security and policy review must be completed by submitting commands before submissions can be considered for publication. Address all correspondence to Editor, InfoDomain, Naval Network Warfare Command, Naval Amphibious Base Little Creek, Public Affairs Office, 2465 Guadalcanal Road, Norfolk, Va., 23521-3228; telephone (757) 417-7958x5, DSN 537-7958x5, FAX (757) 492-8702. Comments or queries may also be forwarded via e-mail to george.bieber@navy.mil

From the NETWARCOM Commander

Welcome to Our Growing Domain

of a new *Domain - Info Domain*. This is the
first issue to be published by Naval
Network Warfare Command. Until
now, it was published by Naval
Network and Space Operations
Command in Dahlgren, VA.

With the growing importance of the information domain and NETWARCOM's expanding responsibilities, *Domain* magazine is being expanded to include our entire "domain" as an Information Warfare Journal covering the best ideas and practices of Naval Network Centric Warfare; Information Operations; Command and Control, Communications and Computers; Space; Signal Intelligence missions and Information, Surveillance and Reconnaissance.

The NETWARCOM domain continues to grow and mature, following the disestablishment of NNSOC and the integration of Naval Security Group and its many subordinate commands. The realignment of all these Sailors, civilians, and contractors and their functions will mutually support the critical information requirements of our operational and support forces. This integration will maximize missions, functions, and tasks; bringing the fourth warfare area, IO, to the next level. The addition of IO and cryptologic capabilities from this 70-year-old community gives NETWARCOM and the Navy unprecedented power to deliver information-age war fighting effects

to the Fleet, joint and coalition commanders.

InfoDomain magazine will continue to highlight initiatives and accomplishments reflecting the core missions of networks, Space, and now IO. However, the goal is to create a "Journal of Information Warfare." To that end. **NETWARCOM** will begin focusing articles on current and future Information Warfare doctrine, tactics, techniques, and

procedures while highlighting best practices, written by cutting edge subject matter experts in all mission areas.

I am soliciting submissions from everyone. The best ideas exist with you, and we must share them across our domain in a constant and demanding exchange.

Changes to fit the mission have already taken place locally as Naval Information Operations Command, Norfolk, has merged its publication "*InfoScope*" with our magazine. So,



VADM James D. McArthur Jr. Commander, Naval Network Warfare Command

our magazine has already been appropriately re-titled "*InfoDomain*" to emphasize NETWARCOM's growth to meet requirements.

More to come. Keep charging! №

Editor's note: All articles for the fall issue must be received by August 31.



Navy Offers Full Tuition Assistance for All Sailors

From NETWARCOM PAO

Education is and will continue to be a key factor in the personal and professional development of our Sailors, according to the CNO's latest message on education. He went on to emphasize Navy leadership's commitment to providing financial assistance to all active duty Sailors as they pursue their educational goals during off-duty hours through tuition assistance, the Navy College Program for Afloat College Education, academic skills development and testing.

Effective immediately, all active duty Sailors are eligible for 100 percent of tuition assistance up to \$250 per semester hour and up to 16 semester hours per fiscal year. Sailors desiring to take more than 16 semester hours must submit a waiver request. Each waiver package will be objectively considered by a review board and evaluated on its own merits. However, in no case will waivers be approved for more than the office of the Secretary of Defense's limit of \$4500 per fiscal year at the \$250 semester hour cap.

Tuition assistance will remain at 16 semester hours throughout FY-07, but Navy Education and Training Command will closely monitor utilization. If the rate of overall Tuition Assistance expenditures creates a danger of running out of TA funding prior to the end of FY-07, NETC may impose management controls and priorities to ensure that academic planning is not disrupted (i.e. limiting TA over 12 semester hours to courses tied directly to degree completion).

While TA is the primary source of educational benefit for sailors on shore duty, Sailors desiring to continue education while at sea or in remote locations should use NCPACE. This program is available with no caps to total semester hours within a fiscal year. In addition to NCPACE and TA, free testing programs such as DANTES standard subject tests, College Level Examination Program and Excelsior College examinations are offered through local Navy College offices and national testing centers. Sailors who may need college preparatory courses are encouraged to participate in the Navy's academic skills program available at sea and ashore.

On another note, those seeking advancement to senior chief for FY-11's selection board and beyond must earn rating relevant associate's degrees from an accredited institution. To review the list of rating relevant degree options from the Navy College Program distance learning partnerships and access Sailor/Marine online academic advisor at https://smart.navy.mil/smart/welcome.do or the smart transcript quick link on Navy Knowledge online at https://www.nko.navy.mil.

The Navy values education and pursuit of a college certificate or degree during off-duty time develops important characteristics such as time management and critical thinking, and enhances competencies in verbal, written and mathematical skills. For the individual, completing a degree or obtaining a certificate, brings not only knowledge related to the academic of emphasis, but also a sense of accomplishment and self-worth in preparation for acceptance of greater responsibilities, taking on new roles or advancement.

For more information please contact Ms. Ann Hunter at (850) 452-8956 or e-mail at ann.hunter@navy.mil.

Final IOD Integration Within NETWARCOM Nears Completion

From NETWARCOM PAO

The missions, functions, tasks, and responsibilities of Naval Network Warfare Command's Information Operations Directorate were fully integrated July 1 with their functional counterparts in their headquarters in Norfolk, VA. The

change affects more than 197 billets from the former Naval Security Group command and further integrates Information Operations and signals intelligence into NETWARCOM.

Located at Fort George G. Meade,

MD, many of IOD's functions involved working directly with the nearby National Security Agency. Certain functions, tasks, and personnel will remain at Fort Meade to ensure close linkage to NSA, but with direct reporting responsibility

to corresponding departments at NETWARCOM's headquarters. The former IOD's mission, functions, and tasks are being functionally aligned into matching directorates at NETWARCOM. For example, IOD1 was realigned into NETWARCOM's N1 (Human Capital Management), providing NETWARCOM's customers with a single point of contact for all HCM aspects of networks, IO, SIGINT, IT and Space functions.

Under this functional realignment, RDML Michael A. Brown, the OPNAV N3IO and N2C, will serve as the senior advisor for IO and SIGINT to RDML Edward H. Deets III, NETWARCOM's vice commander and the Navy's Service Cryptologic Element commander. Executive director Jerome Rapin will continue to perform on-campus liaison functions to NSA, and serve as director, Navy Cryptologic Office, Fort Meade.

In response to the CNO-directed "flagpole study" to reduce the number of Echelon II commands in the Navy, RADM Andrew M. Singer, then-commander, Naval Security Group Command and former NETWARCOM vice commander, developed the CNSG campaign plan in November 2004 to disestablish CNSG and merge with NETWARCOM. IOD then stood up in October 2005 when the Naval Security Group

Command was disestablished and the responsibilities merged with NETWARCOM. The full integration of IOD is the last step in the process of totally integrating missions, functions, assets and personnel from CNSG into NETWARCOM.

The final integration is occurring in two phases. Phase 1 began June 2, and involved the identification of various command relationships and IOD billet placement within NETWARCOM. Phase 2 began July 2, and will involve further definition of command processes and updates to directives and procedures. Phase 2 is scheduled to be completed not later than July 1, 2007.

Base Decal Renewal Available On-line for Many Regions

From NETWARCOM PAO

For more than a year now, anyone trying to renew a regional vehicle decal has been able to do so online. The new process allows customers of Pass and I.D. to bypass lines and waiting times and conduct business with only a few clicks of the mouse.

Navy Region Northwest's webmaster, Mr. Ray Mills, developed the new program and said that within the next few months, all regions in the U.S. will be able to renew their respective regional vehicle stickers online. Currently, six Commander Navy Installations Command regions are online. Navy Region Midwest came online in April, and Mid-Atlantic is expected to be online soon.

"When RADM Len Hering was commander here, he wanted to decrease the wait times at the gates," said Mills. "Now, qualified members just need their data verified, so a system like this made perfect sense."

The site can be accessed by going to your local region Web page and clicking on the "Vehicle Decal Renewal" link on the left side of the page. Mills added that since the site began, his office has been receiving feedback from the users of the Web site and have begun implementing some of their requests.

"One person said they would like to receive an e-mail confirmation saying they have successfully completed their registration," Mills said. "So now when you renew your decal online, you will get an email with all the pertinent information."

Previously, waiting times at Pass and I.D. have been up to two hours, so valuable man-hours were being lost. Since the Northwest region has gone to the Web, a number of other regions have followed suit. For Mills, the idea is to get everyone renewing their vehicle stickers on the Web, adding that man-hours will be saved by doing so, since using the system takes approximately 10 minutes.

"It avoids waiting and drive times," stated Mills. Security is always a concern when using the Internet; therefore, your full social security number is not a necessity to renew your decal. With this in mind, Mills emphasized that, "In the not too distant future, customers will be able to attain decals of the new naval region they are transferring to." Currently, the system allows one to edit his or her personal information such as their phone number or address, saving the customer from doing so at the Pass and I.D. office itself.

"The vision to improve our way of life in and around the Navy made this happen," Mills concluded. "With a total team effort here in the Northwest, we will continue to improve projects such as this one."

The regional online decal applications can be found at these URLs:

Region South at https://www.pid.cnic.navy.mil/form2.asp?region=cnrs

Region Southwest at https://www.pid.cnic.navy. mil/form2.asp?region=cnrsw

Region Hawaii at https://www.pid.cnic.navy.mil/form2.asp?region=cnrh

Region Southeast at https://www.pid.cnic.navy.mil/form2.asp?region=cnrse

Region Northwest at https://www.pid.cnic.navy.mil/form2.asp?region=cnrnw

Strengthens Navy's Communication Capabilities

By MC2 Jesus A. Uranga, NETWARCOM PAO

ommunication literally translates into the exchange of ideas, messages, or information, all of which are critical to any successful operation. Yet it is the term communications, a system for communicating, which aptly applies to the Navy's FORCEnet exercise, Trident Warrior '06. FORCEnet is the key enabler of Expeditionary Maneuver Warfare that integrates Navy and Marine Corps capabilities through exploitation of network-centric warfare.

"NETWARCOM has come to rely on Trident Warrior as its most reliable source to help make critical FORCEnet decisions," said VADM James D. McArthur Jr., Commander of Naval Network Warfare Command. "Trident Warrior is essential to getting concepts and capabilities to sea, trying them out in a realistic environment, and learning from them what is useful

and should be implemented or advanced in a fast track."

Previously Trident Warrior exercises have focused primarily on optimizing military communications available to the fleet and provide communications interoperability capability for coalition forces on multiple networks. However, this year's TW '06 also demonstrated a FORCEnet Information Bridge (Up/ Across/Down) that allowed Naval and Interagency Emergency First Responders to exchange ideas, messages and information, on a near real-time basis.

"The benefits to our nation's capability to organize and respond to a crisis will be immediate from the work done during the exercise," said CDR Tony Parrillo, director of Trident Warrior '06. "We have



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Navy personnel and contractors put the 89-foot, 60-ton "Stiletto" to the test during Trident Warrior '06
Photo by M Ship Co-Bobby Grieser



GAAS's Predator B streams surveillance images back to TW '06's command center. Photo courtesy of GAAS.

already been tasked to integrate several of our procedures and technologies to help the East Coast prepare for the 2006 Hurricane Season."

Participants in this First Responder command and control team included Navy, Department of Homeland Security along with California Office of Emergency Services, California Office of Homeland Security, County of San Diego, and the cities of San Diego and Chula Vista. TW '06 provided processes and tools for all the participants to utilize and coordinate data sharing with federal, state and local command and control nodes, a capability deficiency revealed during Hurricane Katrina.

"Documented processes on how

we exchange information with Interagency teams will inform

inform warfare enabler and COP user."

decision makers on what the Navy operational effenceds to provide in the form of providing better

"Trident Warrior '06's success

will rest on both the concept and

implementation of FORCEnet as a

finalized December 2004. Its intent is to fully mobilize the resources of the entire federal government to support relief and recovery efforts by state and local authorities particularly in catastrophic events like Hurricane Katrina.

The primary method for information sharing is the (national maritime Common Operational Picture) which is a near-real time, dynamically tailorable, net-centric

people, process and technology to execute the President's National Response Plan, " said TW '06 deputy director Brad Poeltler. The National Response Plan was

maritime Common Operational Picture) which is a near-real time, dynamically tailorable, net-centric virtual information grid shared by all U.S. federal, state, and local agencies with maritime interests and responsibilities. FORCEnet experts examined and integrated command and control tools with the newly established Maritime Homeland Security Operational

Planning System. The aim of this planning process was to maximize

operational effectiveness by providing better cooperation

A West Coast sunset silhouettes Trident Warrior '06's command center, the USS Bonhomme Richard (LHD 6) near San Diego's harbor. Photo by IS1 Darryl Nicholson

between agencies to assess threats, prioritize missions, and optimize resource allocation while improving communications during coordinated crisis response.

Organizations within the Department of Homeland Security were major participants in this year's exercise conducted off the southern coast of California and in the Pacific Operating Area aboard the USS Bonhomme Richard (LHD 6). Various U.S. ships participated in the exercise, as well as other supporting platforms from Australia, Canada and the United Kingdom.

The exercise tested new webbased communications technologies and how they interact in a realworld environment. This process was tested through simulated emergency situations such as a terrorist attack and a hazardous chemical spill, to see how quickly and efficiently information could be shared between local, state and federal agencies.

During the hazardous chemical spill simulation, live video and information such as heart rate, respiration and the exact location of the victim was linked from the incident site to the civilian and military agencies. The goal of the experiment was to show the current capabilities of civilian software and how they can tie in with the military, homeland security and public safety systems.

"Trident Warrior '06's success will rest on both the concept and implementation of FORCEnet as a warfare enabler and COP user," concluded Parrillo. "The intended result is ensuring unity of purpose and unity of effort through a process that will establish a chronological and repetitive rhythm that integrates, synchronizes, and sequences information flow and tasking."



Navy personnel aboard the USS Bonhomme Richard view sea trial TW '06's events during their watch. Photo by IS1 Darryl Nicholson



t was a cool Southern California morning when the Navy tracked a suspicious small vessel just off the coast of San Diego. The watch stander had received an intelligence report that the craft might be carrying weapons of mass destruction to the U.S. mainland. A Predator unmanned aircraft was dispatched to monitor the vessel and

video was simultaneously sent back to the Joint Operations Center on board the USS Bonhomme Richard (LHD 6), as well as the Pentagon and San Diego County's Emergency Operations Center.

First responders from the Coast Guard, local police, and fire departments were all alerted to the possible threat. As the day's events



(Clockwise) Jim Garcia, Chula Vista's Fire Department captain holds an electronic device, used to detect harmful chemicals. Garcia checks a "victim" for vitals. A local policeman arrives on to the scene. Photos by IS1 Darryl Nicholson

unfolded a suspicious package was found in the Chula Vista Public Library's parking lot with possible connections to the vessel being tracked earlier by the Navy.

Chula Vista police and fire departments responded to the location to investigate the package suspected of containing a chemical agent. At the scene a victim laid motionless on the ground next to a cardboard box. A firefighter with a breathing apparatus approached the package armed with a hand-held detection device and video camera which sent a live feed of the incident back to the San Diego County Emergency Operations Center.

The situation was compounded when a firefighter determined the package contained cyanide, but the stress did not show on his face. He smiled and than began joking with the victim, as this was just a training event.

This scenario was being held in conjunction with Trident Warrior '06, a sea trial event run by the Navy. TW '06 is really more of an experiment than an exercise according to CDR Tony Parrillo, director of TW '06. It is an annual joint operation and a multinational event co-sponsored by Naval Network Warfare Command and Space and Naval Warfare Systems Command with the intent of exploiting emerging technologies and procedures to build greater warfare capabilities for the Navy. The lessons learned from TW '06 aim to offer superior decision-making and execution capabilities essential for success in the battle space as well as the local community.

Previously, Trident Warrior has focused primarily on optimizing military communications available to the fleet and providing communications interoperability capability for coalition forces on multiple networks. However, this year TW '06 also demonstrated the ability of the Navy, interagency, regional, and local emergency first responders to exchange ideas, messages and information, on a near real-time basis.

The need for the military to support local agencies was



Continued from Page 11

something mandated in the National Response Plan, which was prompted by the events following Hurricane Katrina. Its intent is to fully mobilize the resources of the entire federal government to support relief and recovery efforts by state and local authorities particularly in a catastrophic event.

"The benefits to our nation's capability to organize and respond to a crisis will be immediate from the work done during Trident Warrior '06," said Parrillo. "We have already been tasked to integrate several of our procedures and technologies to help the East Coast prepare for the 2006 Hurricane Season. A hurricane on the West Coast is very unlikely, but in our post 9/11 world it is important for the military to be able to support other agencies in times of national crisis."

"The U.S. Navy has personnel trained and ready to respond in areas that the cities and counties have only just begun to understand," said Jim Garcia, fire captain for Chula Vista's Fire Department. "There is definitely a need for the U.S. Navy, the cities and the other branches of the military to train, develop our skills, equipment and the technology associated with protecting our citizens and this country."

In our ever changing world, interagency communication and cooperation has become increasingly important. As the Navy continues to run events such as Trident Warrior, the lessons learned will improve warfighting capabilities in multinational and joint operations as well as better prepare our nation to respond to domestic emergencies. CR



Sea Trial TW '06 Tests High-Tech Gear

By Robert J. Leone, SPAWAR

The contributions today's technologies offer the U.S. military often require extensive tests and much research to validate their employment throughout the Fleet. In mid-June the U.S. Navy put some new technology "to the test" in its annual sea trial event, Trident Warrior '06, just off the West Coast near San Diego. A unique driving force added to this year's Trident Warrior was the additional emphasis placed on communications between the Navy and Department of Homeland Security, more specifically the federal, state and local authorities in San Diego County's Emergency Operations Center.

However, TW '06's major goal was to generate enough data from various technologies to accurately measure whether these new systems and methods really work. Some of the featured network-centric technology included: the Predator B, an unmanned aerial vehicle which collected video data for Homeland Security, as well as targeting information for

"This option opens-up the possibilty of an operator communicating 'silently' with a ship miles away."

a live-fire exercise against a simulated terrorist target. A simulator for a Littoral Combat Ship was also one of the new "headliners" this year, but it was a tiny, silver-dollar size piece of miniaturized electronics that captured a new audience.

The use of microscopic waves of infrared light is relatively old technology that has fantastic capability, according to communications experts. The idea that the same light used to operate TV, CD and DVD players via remote controls could be used for Navy shipboard communications gained more skepticism than belief until a San Diego-based company recently developed a tiny LED (Light Emitting Diode) transmitter and receiver system utilizing prisms. The device can be placed over the eyepieces of optical devices such as

gun scopes or binoculars to exchange voice and digital data. Many now view this technology as something that may reduce the military's dependency on communications over radio frequencies.

As stated earlier the Navy could choose to use the transmitter on the back of regular binoculars, which would allow the user to verbally communicate with another user using the same technology by plugging an ear piece into an attachment on the binoculars, much like a user would plug in a hands-free set into a cell phone. This option opens-up the possibility of an operator along the coastline to communicate "silently" with a ship several miles offshore or with the installation of the transmitter on a larger set of ship-mounted binoculars, ship-to-ship communications would be possible. The same would apply to a laptop being connected to the binoculars and the users sharing data such as maps and charts, or streaming video.

According to communications experts, communication off a naval platform is bandwidth limited, radio frequencies are vunerable to jamming and radio requires satellite booking time and frequencies in advance, not to mention the possibilities of a radio transmission being intercepted. The need for non-radio technology has become evident during military operations in the War on Terrorism, not to mention radio's limitations. Exchanging data via infrared light can be accomplished as far apart as 12 nautical miles via line-of-sight laser beam and it can extend even further by reflecting the light off of a window or another reflective object. Light frequencies are not regulated, cannot be easily detected and are virtually impossible to intercept.

The Naval Research Lab brought a laser system developed by a Hawaii company, NovaSol to TW '06. This year's testing used a gimbaled laser that could transmit uncompressed live-video of Top Gun along with seperate voice communication feeds from the *USS Bonhomme Richard* (LHD 6) to another ship. The ships also beamed simultaneously another uncompressed movie back. Both tests were successful, and researchers as well as the military are anxious to see this laser system integrated into the ships navigation system for automatic location locking as well as being part of the ships router when within line of sight of other platforms with a laser capability. This demonstration by NovaSol was a big win for TW '06.ce





(Top) A Navy contractor shoots video to be streamed from the USS Bonhomme Richard to another ship. (Above) The NovaSol device performed several tests including transmission of Top Gun through a gimbaled laser at TW '06. Photos by IS1 Darryl Nicholson



Space Campaign Focuses on Future

By George D. Bieber NETWARCOM PAO

The assumption that something is always going to be there often demonstrates the vulnerability of so many things in our lives. One such example is electricity. All too often we take it for granted and when it's not there we wonder how we ever got along without it. The same could be said for space and network missions today and in the future.

A critical component of Naval Network Warfare Command's success is a strategic plan aligned with the Commander's Intent. One of the plan's six strategic goals is to ensure the Navy fully leverages and influences Space capabilities. "While the Navy does operate a small number of DoD satellites, it doesn't have its own exclusive space systems," said LCDR Michelle Hillmeyer, a member of NETWARCOM's space team, "...so we must be smart users and influencers of the resources of the other services, allies, and commercial vendors."

Promoting a better understanding in

the Fleet of how space-based capabilities and space-related events support maritime operations and scheme of maneuver is just one of several strategies space cadre experts are pursuing throughout the Navy. According to Hillmeyer, an Information Professional with 11 of her 15 years in service spent in Space-related billets, "a key element for the Navy's Space strategy lies in making operators and commanders aware of advantages and vulnerabilities of our space capabilities, then ingraining cultural changes based on lessons learned and institutionalizing them through doctrine and policy."

Naval networks can no longer simply operate and maintain an information terminal, warehouse and transmission system, but instead they are a weapon system providing greater speed and agility in the decision making cycle for operational commanders, the warfighters. The Fleet is currently focusing on maximizing combat effectiveness for the Carrier Strike Groups and Expeditionary Strike Groups, an idea emphasized by the Chief of Naval Operations for the entire Fleet.

According to Hillmeyer and other Navy space

experts, warfighters need a better understanding of space capabilities in order to more effectively apply them to their mission. Such abilities include but are not limited to: knowledge of adversary space and counter-space capabilities; knowledge of overhead cueing that supports missile defense; knowledge of space-based Meteorology and Oceanography; knowledge of space weather and its effects on satellites and communications; Intelligence, Surveillance, and Reconnaissance; Positioning, Navigation, and Timing; Command and Control; and Maritime Domain Awareness. MDA is the effective understanding of anything associated with the global maritime domain that could impact the security, safety, economy or environment of the United States and our allies, as well as the Global War on Terrorism.

Recent establishment of the NetOps, Information Operations and Space Center within NETWARCOM has raised global situational

awareness to the next level and marks a great milestone in netcentric operations. The NIOSC Space Cell is an extended space support

"Not only is this essential for our current force – it is vital to our future warfighters. We will be that outspoken advocate!!!"

VADM James D. McArthur Jr.

staff providing global space situational awareness; augmenting combat planning and support execution as requested; collecting information from various space resources, and distilling and integrating relevant information into strike group operations - functions and capabilities not previously available to the fleet.

Today's global environment draws its forces from Navy ships at sea, under the sea, in a data fusion center in Norfolk, VA, in the cockpit, or SEALS in the middle of hostile territory, but regardless of their physical location, the ability to employ our asymmetric advantage in information superiority may be the decisive factor in defeating adversaries of the future or in deterring actual conflict.

The attacks of September 11, 2001 and other terrorist attacks since have forced maritime security to become a national focus. As stated in the September 2005 "National Strategy for Maritime Security" we must ensure the safe and secure use of our world's oceans. "More than 80 percent of the world's trade travels by water and 90 percent

of general cargo is transported by containers." (National Strategy for Maritime Security).

MDA requires a constant global awareness of the maritime environment and space is indispensable for providing global MDA as well as increasing collaboration, situational awareness, and knowledge management on a global scale. It reinforces the requirement for the Service components that use the Global Information Grid to be truly interoperable and joint – by extension, space based capabilities that support naval forces.

"Today, with the promulgation of the NETWARCOM's Naval Space Campaign we can see a renewed focus on how the Navy is looking at the full spectrum of space to support that maritime security strategy," said Hillmeyer. "Additionally, we need to ensure space effects provided by the executive agent for space meet the Navy's requirements whenever and wherever they're needed. Our current strike groups are using space-based effects to help build a better

Common Operational Picture; however, we must develop our people, processes and training to meet our future requirements."

The Navy's space cadre consists of space professionals who can leverage space with a warfighter's focus and create the desired effects. These space-trained professionals are providing leadership and technical expertise in the areas of assessments, requirements, science & technology/research & development, acquisition and operations. Though small in numbers, they are represented on various senior Navy and joint commands, Navy ships and staffs. The Marine Corps manages it own separate space cadre, to represent Marine Corps and FMF requirements for space.

Hillmeyer's position as space advisor on the NETWARCOM staff more than speaks well of her background. She has briefed numerous naval and joint forums on the Naval Space Campaign, outlining NETWARCOM's phased approached to making space operationally relevant to the warfighter. Just last year she taught a "Space Warrior" segment at the Naval Operational Planner Course at the Naval War College. This

13-month course, focused on educating select Navy and other service officers in the skills required for the planning and execution of joint and naval operations, before these specially trained officers report to operational staffs. She introduced future naval planners to the importance of considering and incorporating space effects into their mission planning.

"Space experts are critical to all phases of fleet operations." she emphasized. "They can educate our forces, from tactical level operators to our most senior leaders, on the operational use of space - many for the first time." Hillmeyer and others believe the Navy needs it's warfighters and commanders to continually think of space and space effects as a part of exercises, operations and contingencies – it must become second nature because of the Navy's dependence on space-based systems.

The full realization of FORCEnet, Navy's integration and alignment of network-centric warfare, is also dependent on new space-based capabilities, and ensuring the right space systems are available to fully support FORCEnet and enable Net-Centric Operations. Those involved in the Navy's space strategy are strong advocates to their respective leaders in ensuring space effects and space systems are an integral and prominent part of our maritime strategy in the 21st century, and beyond. Being experts in Space, Command and Control, Communications, Computers, and network operations shows the Navy space cadre as an agile,

flexible force – which is able to adapt to meet the ever-changing demands placed on our Navy.

"Newer satellites will be required in the future, especially as our current systems age and degrade," added Hillmeyer. "Besides the adversary's potential space capabilities, there are other factors we need to consider in order to determine if they might affect services provided to the Fleet. The space environment presents many challenges - solar flares, radiation, space debris, cloud cover are just a few. Additionally, the sheer number of satellites in orbit around the Earth can be of concern – close approaches between satellites or errant space debris can cause problems."

Technology, budgeting, and realization of a world-wide Navy vice regional are all additional obstacles facing the space strategy. However, many believe initial and on-going education for space cadre and other officers, regardless of service, as well as joint duty billets will ensure the Navy fully leverages and influences Space capabilities for the warfighter today and tomorrow.

"We must continue to be a demanding customer of U.S. Strategic Command, our space provider," emphasized VADM James D. McArthur Jr., Commander NETWARCOM. "We must ensure Navy space requirements and needs are clearly articulated and realized. Not only is this essential for our current force – it is vital to our future warfighters. We will be that outspoken advocate!!!"



Naval NETWAR FORCEmet Enterprise



A Cultural & Behavioral Change

From NETWARCOM PAO

ecently the concept behind Naval Network Warfare FORCEnet Enterprise was presented to the Naval Network Warfare Command staff by its commander, VADM James D. McArthur, Jr., at Naval Amphibious Base Little Creek's base theater. This was the first time the entire staff gathered in one place to discuss NNFE. Earlier this spring, McArthur held a similar all-hands call with RDML Michael Bachmann, Space and Naval Systems Warfare Command commander and his staff. McArthur also met with DCNO for Communication Networks OPNAV (N6), RDML Kenneth W. Deutsch to discuss the importance of NNFE, and other issues.

"NNFE is bigger than just NETWARCOM," emphasizes McArthur, "It's a cultural change, as well as a behavioral change." According to the admiral, it follows a business-model approach and combines the facets of Command and Control, Computers, Communications and Combat Systems, and Information Operations (which is called an "enterprise") to create an organization that better understands the procedures and processes necessary to meet the fleet's requirements. This approach will allow the enterprise to make better decisions when applying critical resources, both dollars and manpower.

NETWARCOM, SPAWAR,

Program Executive Officer, C4I & Space, Naval Sea Systems Command, OPNAV (N6), and other commands that provide C5I and IO support comprise the Board of Directors, which meets on a regular basis. McArthur is the Chief Executive Officer, Deutsch is the Chief Financial Officer, and Bachmann is the Chief Operations Officer.

The BOD has created four Cross Functional Teams: strategic planning, warfighter/customer assurance, provider modernization, and life cycle support and financial/funding. The CFTs meet regularly and are establishing the way ahead by developing process mapping and metrics generation. The primary objective is to deliver the right readiness at the right time at the right cost to the fleet.

Eight goals have been established by the strategic planning CFT which will drive the NNFE as it continually strives to achieve its vision.

- 1. Ensure alignment of FORCEnet capability development to joint and coalition guidance.
- 2. Guide FORCEnet implementation and fielding processes (long-term view) by articulating capabilities (across Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities) and entitlements as they evolve over time.

- 3. Guide modernization, sustainment and fielding plans (short-term view) to satisfy readiness requirements and near term entitlements.
- 4. Efficiently equip Sailors and Marines with effective and affordable net-centric systems.
- 5. Organize and train to effectively and efficiently operate, maintain and defend Navy and Marine Corps net-centric systems.
- 6. Identify and develop an authoritative and focused set of net-centric experimentation and technology objectives to address capability gaps
- 7. Apply resources to balance current and future readiness for net-centric capabilities.
- 8. Mature NNFE organization and processes to support the mission.

McArthur went on to add that the program is all about speed and agility. "We need to develop processes and work on the fundamentals," he concluded. "The enterprise is here and the CNO has endorsed it!"

For more information about NNFE contact CAPT Edward D. Rosequist, special assistant for enterprise development at (757) 417-6726 or Ruth Fox, deputy assistant for enterprise development at (757) 417-7909.

Unlock Comp

Log-In Nears Completion

By MCC(SW/AW) Joseph W. Gunder Photo Illustration by Michael J. Morris NETWARCOM PAO

he Navy/Marine Corps Intranet is proceeding full speed ahead with the switch to Common Access Card log-on for most users of its network. NMCI passed the 80 percent completion mark July 15 by converting more than 400,000 of its users to mandatory log-on.

The use of a CAC and Personal Identification Number replaces the traditional username and password, and will be enforced for all but selected users. NMCI is the first of the Navy's networks to convert its users to a log on process that is more secure.

"Our goal is to have the NMCI network completely transitioned by July 31st," said Cathy Baber, Information Assurance lead for Naval Network Warfare Command. "At our current rate, we're anticipating a complete transition of NMCI before our target date."

The Department of Defense's Joint Task Force - Global Network Operations mandated the switch to CAC log-on as part of its IA strategy for protecting its information and networks.



Continued from Page 19

The CAC makes possible the Cryptographic Log-On, also called CAC log-on, or even CLO. Cryptographic refers to the "crypto key," the information in the CAC's chip that verifies a user's identity. The stored information allows the users to prove their identity by entering a six- to eight-digit PIN after inserting their CAC into a card reader connected to their computer.

CAC log-on is part of the overall network defense strategy known as "defense-in-depth." The term originated from ground warfare tactics where one's troops were placed at varying distances inward from the front line, rather than have everything up front at the same time. By spreading the troops in layers, the enemy has to penetrate more than one front, and runs the risk of becoming trapped if it gets in too deep.

Just like on the battlefield, CAC log-on provides that extra layer of protection, in this case, at the level of the individual user, the

most important layer of the "cyber security force."

"The end users are the consumers, gate guards, the weak points," said Chief Cryptologic Technician (Maintenance) Ken Drummond, IA manager for NETWARCOM. "If someone isn't following procedures, having a bad day or forgets something, an opening could be created through which an adversary could take advantage and enter the network."

Drummond said that CAC logon takes that variable out of the equation by forcing the user to prove who they are with multiple factors.

"Before, when you typed in your username and password, those two together were something you know, but not something you have," Drummond explained. "Even then, it was easy to figure out someone's username – first name, last name - then all you needed was the password. And with e-mail, everyone assumed it came from you since it had your name on it."

Drummond added, "Now with

CAC log-on, you can digitally sign an e-mail, which gives the recipient assurance that the e-mail is authentic. CAC log-on authenticates the user by verifying what they have (the CAC card) and what they know (their PIN). What CAC log-on gives us is increased confidence that. without hesitation, that e-mail did in fact come from whoever it says it's from. That, he said, is how the use of a CAC adds extra "depth" to network security."

After three incorrect log-on attempts, the card becomes "locked" and must be reset at the local personnel office. Before the card can be unlocked, users have to provide information about themselves, decide on a new PIN, and provide another fingerprint.

Transition to CAC log-on by the Navy began May 22. Full implementation across all of the Navy's main networks is expected by 2010. 🗪

Editor's Note: As of press time the percentage of completetion was more than 89%.

Sailors and Veterans Share Uncertainty

From NETWARCOM PAO

The past couple of months have been an identity theft nightmare shared by more than 26.5 million L veterans and some 30,618 active duty Sailors and their families. Personal information, including names, birth dates and social security numbers were all at risk of becoming public knowledge, instead of private information.

The Department of Veterans Affairs' security breach occurred in May at a VA employee's Maryland home, when a laptop computer and hard drive were stolen. Secretary of Veterans Affairs, R. James Nicholson, announced early in the investigation that the VA was reviewing the possibility of providing one year of free credit monitoring for people whose sensitive personal information may have been stolen in the incident.

Fortunately, an unnamed individual recently turned over the missing laptop and hard drive to the FBI.

Government officials do not believe the data on the laptop was the target of the burglary, and consider the break-in a random theft. Reports indicate the FBI has also made a preliminary determination that the data contained on the computer and hard drive has not been accessed. However, free credit monitoring is still being considered for some, dependent on investigation results.

As part of VA's efforts to prevent such an incident from happening again, Nicholson has made a series of personnel changes in the Office of Policy and Planning, where the breach occurred. Nicholson has hired a special advisor for information security; expedited completion of Cyber Security Awareness Training and Privacy Awareness Training for all VA employees; required an inventory be taken of all positions requiring access to sensitive VA data to ensure only those employees who need such access to do their jobs have it; every laptop in VA undergo a security review to ensure all security and virus software is current, including the immediate removal of any unauthorized information or software; and VA facilities across the country – every hospital, Community-Based Outpatient Clinic, regional office, national cemetery, field office and VA's Central Office – practice Security Awareness.

"This incident has brought to the light of day some real deficiencies in the manner we handled personal data," said Nicholson. "If there's a redeeming part of this, I think we can turn this around."

People who believe they may have been affected by the data theft can go to www.firstgov.gov for more information.

VA also continues to operate a call center that people can contact to get information about this incident

and learn more about consumer-identity protections. That toll free number is 1-800-FED INFO (1-800-333-4636). The call center is operating from 8 a.m. to 9 p.m. (EDT), Monday-Saturday as long as it is needed. However, news on the personal data of thousands of Sailors and family members being discovered on a civilian Web site continues to be broadcast on national television and radio sources. Military media also continues to publish

articles on this situation



affecting primarily those service members who had been stationed in areas struck by Hurricane Katrina.

The Chief of Naval Personnel was first notified in June that an open Web site contained five spreadsheet files with personal information. The initial discovery was reported to the Navy Cyber Defense Operations Command, part of the Naval Network Warfare Command, by Joint Task Force Global Network Operations, a component of U.S. Strategic Command, responsible for directing the operation and defense of the DoD's global information grid.

The files have been removed from the site, and the Chief of Naval Personnel is working with Naval Criminal Investigative Service and other commands to determine how and when the files were placed on the Web and prevent future release of information of this type.

Individuals affected by this will receive letters from

NPC to ensure they have information on how to guard against identity theft. Additionally, information on how to watch for suspicious activity on personal accounts has been posted on the NPC Web site, www.npc.navy.mil. To date, there is no evidence that any of the data has been used illegally, but individuals are encouraged to carefully monitor their bank accounts, credit card accounts and other financial transactions.

Tips on how to watch for suspicious activity include closely monitoring bank and credit card statements for fraudulent transactions. Monitoring accounts online is the best way to detect fraud early. Those finding fraudulent accounts or transactions should contact the involved financial institution to close the fraudulent accounts or accounts that have been tampered with; file a report with your local police department; and file

a complaint with the Federal Trade Commission at https://rn.ftc.gov/pls/dod/widtpubls.startup?Z ORG CODE=PU03.

Additional information is located on the NKO Web site: Course Title - Identity Theft and Catalog Code -FS0406 ENG. Log into NKO, click the Learning Tab, click E-learning Auto-Logon Gear link, click advanced search, under course title enter Identity Theft, enroll and begin training. The course is designed to educate Sailors on the simple steps they can take to avoid becoming a victim and the consequences they could face, both personally and professionally, if their

information falls into the wrong hands.

Individuals can place a 90-day fraud alert on their credit report, which tells creditors to contact them before opening any new accounts or making any changes to existing accounts. However, this action may cause some delays if someone is trying to obtain new credit. Those wanting to retain the alert after 90 days will need to renew it.





Operations Team Stands Ready

From NIOC Maryland PAO

would the human body. The brains of a given military operation are at headquarters. The hands and feet are the warfighters in the field. The Deployable Communication Operations (DCO) from Navy Information Operations Command Maryland is the team that acts as the central nervous system linking the two.

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"We are the conduit that links the warfighters with the decision-makers. We make available to the operators in the field all of the available Department of Defense resources worldwide," said Chief Christopher Brown of Navy Information Operations Command Maryland.

"We are vital to enhancing forceprotection," Brown added, The troops need us."

Without DCO in the field directly supporting the elements involved in Operation Enduring Freedom and Operation Iraqi Freedom, the moment-to-moment planning and execution of ongoing operations would be much more difficult. Field elements would be overly cautious tactically, taking more time to get the job done - the sort of undue hesitance that often increases the likelihood of mission failure. Ready to deploy anywhere, anytime, within three days, to support ongoing combat operations, DCO brings to bear the high-speed capability necessary to conduct modern warfare. "With us [intheater], forward-deployed forces can customize their force-protection measures: increasing the likelihood of mission success," Brown asserted.

The joint nature of DCO operations brings the Navy assets into contact with other military service branches and deployed civilian agencies engaged in critical operations worldwide. It is especially important for DCO deployers to work well with the various elements to which they provide field communications.

What makes DCO members so special is their ability to work independently in a non-traditional environment, as part of the joint service team. "These Sailors aren't afraid to get their hands dirty pitching tents, pulling wire and standing armed sentry," Brown added.

Working in a predominantly joint environment offers DCO deployers a unique opportunity to become well rounded. One of the most challenging and rewarding advantages of DCO is the wide range of experience deployers gain organizing, multi-tasking and trouble-shooting. The team builds and manages the entire communications set-up from the planning and logistics to the final communications package, and everything in between. "If something breaks, we have to fix it right there in the field," acknowledged Brown.

Applicants for the DCO team must meet or exceed strict selection criteria. In addition to being physically fit, the member must have consistently respectable Physical Fitness Assessment scores. It is also essential that they be emotionally mature, highly

motivated and mission-oriented. Those selected to be DCO deployers attend field exercises to maintain their rapid-response capability. Field training includes HUMVEE operator qualifications, training in convoys, small arms and small unit tactics, perimeter defense, attack repelling, survival training, emergency destruct procedures, orienteering/land navigation with compass and global positioning system, first-aid, cardiopulmonary resuscitation and helicopter medical evacuation.

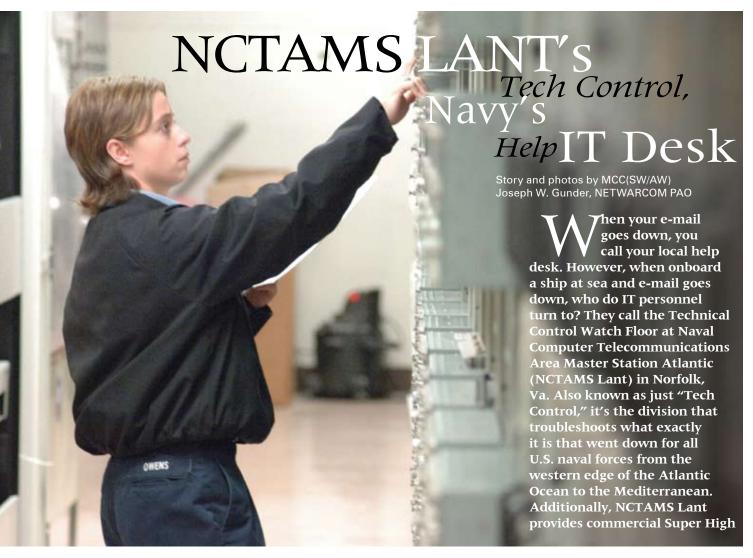
However, before a candidate even gets to field training they must first survive the interview. The interview process can be the deal-breaker.

"The number one trait we're looking for is the maturity of the individual because they have to be able to operate independently in a joint service environment," Brown stated. "Each of us has to be able to perform with little or no supervision. There are no babysitters in the field."

Members must be worldwide deployable on short notice and motivated.

"One of the hardest things about DCO operations is deploying for extended periods of time while on shore duty," explained Brown.

The DCO team stands ready around the clock to deploy globally in support of any operation where the vital links between the brains and feet are needed.



IT3 Krystal Owens verifies the configuration in one of the many FCC-100s used for INMARSAT communications. An FCC unit is a multiplexer, which allows multiple circuits to be trunked into one path. The "F" stands for fixed ground; the first "C," carrier, electronic wave signal; and the last "C," communications (transmit/receive).

Frequency (SHF) connectivity to flagships operating in the Arabian Gulf, providing such services as video teleconferences, e-mail connectivity and phones.

"We are the Atlantic Fleet's communications help desk," said IT1 Nelson Joseph, Tech Control operator. "When ships give us a call, we do our best to solve their problems. It might be e-mail, voice or data."

Tech Control makes sure that the radio frequency, or RF "pipeline" is running properly for all circuits under their control, whether it's ship-to-shore or shore-to-shore communications.

"We provide RF connectivity to fleet operational units," said CWO4 Fred Eshelman, Tech Control's division officer. "We are the first place that RF touches land from the sea."

The areas of responsibility for NCTAMS Lant's Tech Control include units operating under the Navy's 2nd Fleet, 6th Fleet and 5th Fleet. With a total of about 60 personnel throughout the division, Tech Control is divided up into three sections: the civilian DISA (Defense information Systems Agency) office, who works connection issues to the Navy's

portion of the Global Information Grid; the Crypto Support section; and the operational watch floor.

The watch floor is who actually gets the phone call or message from the ship that something's down. They operate 24/7 to ensure all possible circuits are available to get information to and from naval units. Their watch sections are divided up to about 8-to 10 people each.

The team is lead by an IT1 or senior IT2, who stands what's called the Chief of the Watch. Tech Control's IT2(SW) Douglas Dubuque is one of the members who hold this position. His team is responsible for reporting

problems up the chain as they are discovered and troubleshooting whatever failed. "We monitor certain circuits, or a unit might contact us if there is a loss of a particular service. The most common problems we have are with pierside T-1 connections or INMARSAT."

INMARSAT is a commercial satellite service that, for the small-deck ships, provides their primary IP and shore telephone service. Large-deck vessels such as carriers and amphibious assault ships have INMARSAT, but primarily use SHF for their telephone service.

Communication problems from fleet units are reported however possible, but sometimes they arrive via a special message known as a "COMSPOT," which is basically a tactical message that says something is down or degraded, and gives details about status, impact, etc.

Another function of Tech Control is to update fleet units with fresh crypto key via an over-the-air transmission system normally associated with the fleet broadcast system. However, other RF paths such as DAMA (demand assigned multiple access) are also available for the support. DAMA is a UHF satellite system that serves operating naval forces (Med DAMA for the Mediterranean Sea and CONUS DAMA for the Atlantic Fleet). DAMA is a satellite multiplexing system for UHF that maximizes the use of available bandwidth by time-division multiplexing between several signals so they can share a single frequency. While this is an older system, it still provides the communications core for the smaller and medium ships, which normally don't have SHF equipment installed.

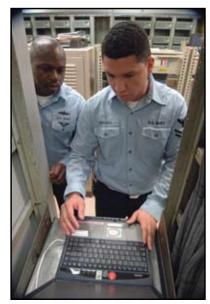
"We control the day-to-day operations for DAMA," said IT2 Angel Mercado. "One time a ship reported a problem receiving crypto information. But there are many ships passing data at the same time on the circuit. We have to stop the

other ships from passing data on that circuit. We ended up first taking them off one by one until we knew which ship was the one with the problem."

Other communications equipment operated by Tech Control includes those using Extremely High Frequency (EHF). This system has greatly expanded in the last few years to provide IP services to operating ships. Systems currently being tested on EHF now include EHFnetted systems,

which will allow multiple ships to pull IP services via a common EHF channel. This is along with the traditional EHF circuits such Fleet broadcast and Point-to-Point Communications.

While the majority of systems operated at NCTAMS Lant have



IT2 Angel Mercado shows IT1 Michael Anderson how to verify connections between NCTAMS Lant and remote Land Earth Stations.

been around for a few years, new systems are being added and tested continuously. Recently the command has begun operating Asynchronous Transfer Mode (ATM) connectivity for select ships which will provide the possibility of larger volumes of continuous data exchange. ATM-capable ships send and receive data that has been

multiplexed with other signals to be used over a single trunk.

The next time you're at sea and the e-mail works fine off the ship, remember the team at NCTAMS Lant's Tech Control that keep the data flowing.



Communications Technician Diane Hallet works with IT2 Douglas Dubuque to make Asynchronous Transfer Mode connections on ATM-capable ships. The ATM is a multiplexing unit which allows voice or data circuits to connect to a single trunk for transmission to ships.



NIOC Norfolk's CO No Secret to His Success



Story and photos by MCC(SW/AW) Joseph W. Gunder **NETWARCOM PAO**

o be a commanding officer in the Navy is considered the pinnacle of a career. University of Southern Maine alumnus William E. Leigher ('80, Political Science) reached that goal when he took charge of Navy Information Operations Command Norfolk at Naval Amphibious Base Little Creek, Norfolk, VA.

He was originally the executive officer of NIOC Norfolk before taking the job of commanding officer. Already a captain, but now a commanding officer as well, he now leads a mix of about 600 military and civilian employees who carry out the command's mission of planning and conducting Information Operations. This type of military warfare involves both the collection and restriction of information to gain a tactical advantage over an adversary. NIOC Norfolk is one of 15 commands world-wide that deal in IO. Leigher's command has the distinction of being the "Navy's Center of Excellence for IO", which means it is the Navy's primary source for the development of IO doctrine and tactics. NIOC Norfolk's main function is to provide operational and strategic planning for Navy commanders worldwide. It also deploys some of its members to perform IO aboard aircraft carrier strike groups and in places such as Iraq and Afghanistan.

After graduating from college, the Appleton, Maine native found jobs scarce at the time. However, the U.S. Navy was hiring -- and there were others in Leigher's family who had served in the Navy and done well. "My uncle had been a master chief in the Navy," Leigher remembered. "He had just retired. He talked a lot about the Navy so I understood the culture."

Besides the retired master chief, Leigher's father had another brother in the military; this one was in the Air Force and worked in something called "signals intelligence."

"He didn't talk about it much back then at all." Leigher said. "My uncle would say 'I do Morse Code.' I didn't put it together until many years later that what we were really doing was intercepting Morse code that Russians were using for longrange communications. Now it's unclassified, but in those days, you just didn't talk about it at all."

Leigher joined the Navy in 1981, and started off as an ensign, the lowest officer rank - and an "unrestricted line officer" at that - which in the Navy meant that he got stationed wherever he was needed. "You got to pick a homeport and a ship, but after that, you had very little say in where you were going."

His first tour was aboard the destroyer USS Thorn (DD 988) where he served as the communications

officer, and was in charge of Sailors who sent and received electronic voice and text messages. "It was as a communications officer that I got to know the Navy's business pretty well."

While on the Thorn, Leigher made friends with a cryptologist, someone who also deals in electronic communications, only on the classified side. The two would've worked together anyway, but they were close, and Leigher began to think about becoming a cryptologist himself.

A Navy cryptologist not only adds the science of code-making and code-breaking to what a communications officer does, they

also engage in signals intelligence, which means gathering radio signals to see what potential adversaries are up to.

So in 1987 Leigher "laterally converted" (changed career specialty) to naval cryptologic officer. His first tour as a cryptologist was at Naval **Security Group** Activity Hanza, Okinawa, as the head of both Morse and non-Morse Code collection divisions. Known as "NSGAs," these small commands were responsible for electronic signal collection of possible threats to

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the United States.

Nineteen years later, Leigher has come full circle with command of NIOC Norfolk, a unit somewhat similar to the NSGA on Okinawa. All NSGAs in the Navy have since been disestablished and their missions have been integrated into today's NIOCs.

"It's an awesome responsibility,"
Leigher said about his new job as
a commanding officer. "It's also a
wonderful challenge to be able to
work with some of the brightest
young men and women that our
country has to offer. It's a lot of fun.
I am tremendously energized by it."
NIOC Norfolk is a subordinate

of Naval Network Warfare
Command, which is the Navy's
type commander for IO,
FORCEnet, networks and
Space. Based in Norfolk, VA,
the command is the central
operational authority
responsible for coordinating
all information technology,
information operations,
and space requirements and
operations within
the Navy. 🗪



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By Lt Salvatore D'Amato, NCTS Sicily PAO

nvision requesting five-star luxury hotel support for a high-level governmental conference in one of the most picturesque vacation spots in the world. Naturally, any hotel manager would be happy for such off-season business as well as the prestige.

Hurdles are encountered though, as it becomes clear to hotel management that information technology requirements consist of adding service capability beyond that provided by the hotel. The happiness wears off when the "hoteliers" realize they will be invaded by ugly cables in hallways, ceiling panel removal, holes drilled, and the loss of the luxurious atmosphere of their hotel while it's being transformed into a communications command center.

Earlier this year, the U.S. State Department tasked Naval Computer and Telecommunications Station Sicily with providing dedicated voice and data capabilities to hotels located two hours from Naval Air Station Sigonella, Sicily. The task, headed by base communications officers, Gary Markham and LT James Pasley, consisted of providing voice and data services for three five-star hotels in the resort town of Taormina, Sicily for the U.S. contingency at the annual NATO Defense Ministers Informal Conference.

The first step required drafting preliminary communications plans, which involved surveying up to 10 hotels for antenna placement and effectively managing a \$40,000 budget. Simultaneously, they handled delicate negotiations with hotel management, providing assurances that no permanent physical changes would be made to the hotels. The next step

came during the mid-planning stages of the project, when it was discovered that the communications servicing two of the three hotels were saturated.

Pasley, working with the Italian telephone company's DoD provisioning officer, Vincenzo Pedozzi of TELECOM Italia, was able to develop a plan for installation of four; 2-Megabit connections from the public telephone system connected to two leased PABX telephone switches, in order to extend dedicated direct-dial telephone service and high-speed ADSL capability into the hotels. A cost proposal was developed and approved by the conference organizer, John Boyd of the U.S. Department of Sate.

As with almost all major communication evolutions, requirements changed on an almost daily basis. Again, Pasley addressed the dynamic requirements of the project, managing the needs of the delegation by providing an on-site ADP administrator and working with the local Italian phone company to adjust OPSEC requirements, providing 24-hour services to 89 personnel in attendance. Meanwhile, NCTS Sicily's Base Communications Office database manager, Francesco Marchese, published daily GANTT charts reflecting dynamic milestones and requirements. The BCO's technical director, Dr. Pietro Migliorini, was the focal point for coordination of installation work being performed by TELECOM Italia and their sub-contractors.

In less than 30 days from the receipt of the requirements by the BCO, the three hotels were augmented with: 49 direct dial lines, 10 ADSL connections, two high-speed internet connections, four 2-megabit connections, six ISDN lines, four FAX machines, four printers and various work stations, TV satellite antenna, two PABX telephone switches, and 26 cell phones.

The conference was a success and a testament to the Navy's ability to deal with unstructured situations, as well as the honor of providing communications support for some of NATO's highest officials.

Markham commented; "When it was all over, I was thrilled to receive a Secretary of Defense coin from CDR Robert Johnson, the commanding officer of NCTS Sicily. I'm also pleased that the annual NATO Defense Ministers Informal Conference rotates among the NATO countries so that other BCOs will have the opportunity to create similar experiences and lasting memories."

Community Acknowledges NCTAMS PAC

he 50th Annual Excellence in Federal Government Awards celebration was held recently at the Sheraton Waikiki Hotel. This year's theme was "Making the Difference...Paying it Forward". Awards were presented by the Honorable Governor Linda Lingle.

This was Naval Computer and Telecommunications Area Master Station, Pacific's first year to participate in the awards celebration. The command was proudly represented by members of its military and civilian community in every category.

Topping the list of awards was the Federal Employer of Choice award. Accepting the award was NCTAMS PAC commanding officer, CAPT Jim Donovan.

The Federal Organizational Excellence award was presented to the NCTAMS PAC's financial department, represented by the (N7) department head, Mr. Lloyd Cerelejia. CDR Jessica Szemkow, department head of the operations department (N3) was recognized as the Federal Supervisor/ Manager of the Year. Szemkow has coordinated operational requirements for five regional sites and oversees numerous technology upgrades which improve communication services.

The Federal Employee of the Year awards had several diverse categories. Recognized were the professional, administrative and technical category, the clerical and assistant, trades and crafts and exceptional community service.

Mr. Michael Beckner (N3 Department) represented NCTAMS PAC in the professional, administrative and technical category. Beckner's technical expertise and guidance greatly impacted 122 Pacific Fleet ships in all aspects of communications readiness.

Representing the clerical and

assistant category was Ms. Millie Sunakoda (N1 Department). Sunakoda provides civilian personnel assistance to the command and Mr. Frank Monroe (N6 Department) maintains more than 2,500 pieces of electronic equipment, supports 122 ships of the Pacific Fleet, and has supervised 17 installs/upgrades and 150 work requests. Monroe was recognized in the trades/crafts category.

ET1 (SW) Valentine Elizondo (N6 Department) represented the command in the exceptional community service category. Among the many community service projects he has organized, a few include: Operation Aloha, serving meals to more than 250 less fortunate, several Falls of Clyde and USS Missouri restoration projects, and the NCTAMS PAC Easter egg hunt for more than 200 local Wahiawa community children.



NCTAMS PAC's recipients of various awards from left to right are Mr. Frank Monroe, CAPT Jim Donovan, Governor Linda Lingle, CDR Jessica Szemkow, Mr. Michael Beckner, Ms. Millie Sunakoda, Mr. Lloyd Cerelejia, and ET1 (SW) Valentine Elizondo. Official U.S. Navy Photo

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A Flag Comes Down on Dahlgren

Story and photos by Doug Davant Naval Support Activity South Potomac PAO

In a bittersweet ceremony adorned with the pomp and splendor of sea service tradition, a flag was hauled down recently. It came to represent the Navy's official disestablishment of involvement with space and network operations at Dahlgren, VA. The event also marked Naval Network Warfare Command's largest integration of a subordinate command since Naval Security Group's merger in September 2005.

Though not official until Sept. 30, 2006, the disestablishment of Naval Network and Space Operations Command means 250 billets are being moved south to the Headquarters Operations Directorate at Naval Amphibious Base, Little Creek, VA. Many of the billets will be used to man the NetOps Information Operations and Space Center which operates on a 24/7

watch cycle.

RDML Gerald R. Beaman, the outgoing commander of NNSOC, began his opening remarks stating, "Today marks the beginning of another chapter for Navy space." He said, "Our true place in history reaches back to a time when sailors looked to the stars to navigate, back to the days of Thomas Sumner, a 19th century U.S. Navy captain who pioneered celestial navigation for every U.S. ship when he realized that observation of the altitude of a celestial body determines the position of a line on which the observer is located."

Dahlgren's last admiral also praised those he called "the silent warriors". "The men and women of NNSOC are used to being the silent cyber warriors in today's Navy. These great Americans are at general quarters

around-the-clock, manning their watch stations, defending our networks and the critical information that passes through this weapons system, the Navy network. They are the unsung heroes of this global war on terrorism and I for one am proud to be counted among them," he said.

In later remarks, Beaman went on to call the personnel of NNSOC "my family". "One and a half years ago, I accepted command of NNSOC," he paused. "There was as there is now a lump in my throat as I look over you ... I wish to thank each and every one of you, my other family, for what you have done. Dahlgren has been our little slice of heaven."

"I have mixed emotions about today. Mixed in that I am proud of the job that we as a command have accomplished and yet saddened by the thought of what today's ceremony represents. There is no particular honor in being the last commander of a disestablishing command, but to those that commanded before me, let me just say, I am honored and humbled to have my name amongst yours," he concluded.

The NNSOC commander introduced VADM James D. McArthur Jr., commander of NETWARCOM to an audience of more than 400 people including former



RDML Gerald R. Beaman addresses past NNSOC commanders and guests at the command's disestablishment ceremony.



VADM James D. McArthur Jr., NETWARCOM commander awards RDML Gerald R. Beaman, NNSOC's last commander.

commanders of Naval Space Command: RDML Katharine L. Laughton, RDML John P. Cryer, RDML Richard J. Mauldin.

McArthur told the NNSOC crowd that he understood "mixed emotions". "But it is occasions (such as this) that give a rare opportunity to look to past achievements and then to the future. I fully intend to carry on what this command began," he said.

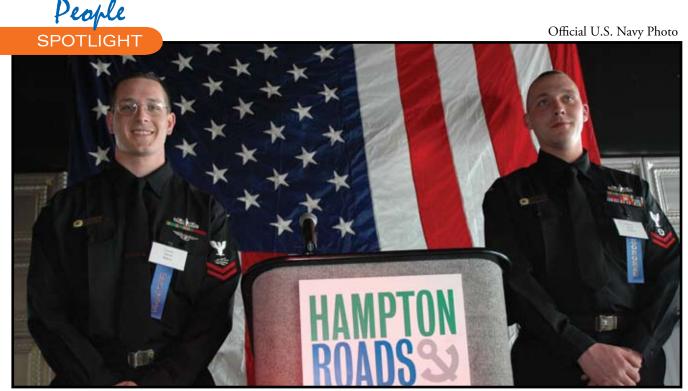
NETWARCOM now inherits NNSOC's mission and goals, which are to operate and maintain the Navy's Space and global telecommunications systems. The service NNSOC provided allowed naval forces to use information, space technologies and expertise to attain and preserve knowledge superiority, essential for dominating the battle space.

Formed back in July 2002, NNSOC was created through the merger of elements from Naval Space Command and Naval Computer and Telecommunications Command.

"I look forward with confidence to continue the rich history that began in 1983, when NNSOC's predecessor, Naval Space Command, was established. I commit to all current and previous commanders of NNSOC that we will sustain the excellence of this command."

Since the ceremony, Beaman has moved on to lead the Strike Force Training Command Pacific, in San Diego.

A brief reception followed the ceremony.



LOCAL CHAMBER OF COMMERCE

RECOGNIZES TWO NCTAMS LANT SAILORS

From NETWARCOM PAO

he Hampton Roads Chamber of Commerce recently held their semi-annual Military Reception at Jillian's located at the Waterside Festival Marketplace in Norfolk, VA. Two Sailors from Naval Computer and Telecommunications Area Master Station Atlantic were recognized at this event, IT2 (SW/AW) Jason Baker from N3 and EN2 (SW) Chad Osmus from N4. There were more than 300 other Sailors and Marines throughout the Hampton Roads area recognized at this event as well.

Baker was selected for this honor due to his outstanding performance as the command's tactical plans coordinator, petty officer of the watch, and divisional safety representative. His dedication and hard work along with his technical expertise

have been noticed throughout the Fleet and within the NCTAMS LANT Team. Baker routinely provides support to five Carrier Strike Groups, four Amphibious Ready groups, and numerous independent-steaming units.

Osmus was selected for this honor due to his outstanding performance as engineering officer of the watch, department 3M coordinator, department supply representative, and a volunteer Navy and Marine Corp Relief Society representative. He inspires others to meet and excel with higher professional standards of quality and performance. Petty Officer Osmus has only been in the service for five years and his accomplishments are most noteworthy.

The purpose of the reception was to strengthen the relationship between the business and military communities. A sense of patriotism was felt by all those in attendance. CMDCM Chappell, NCTAMS Lant Command Master Chief, feels that it's great that the community takes the time to recognize some of the Navy's finest Sailors and Marines throughout the area as they fight for the Freedom of our Nation.

"The Hampton Roads Chamber of Commerce did a great job organizing the Military Appreciation Day with good food and a friendly atmosphere. I felt pride knowing that blue shirts were being recognized in a such a formal setting in front of so many of our family members, officers, chief petty officers, and city officials," remarked Baker.

"It is nice that we live in a community that recognizes the sacrifices of our military personnel and they are willing to support us," Osmus added 🖎

NCTAMS PAC RECEIVES

QUARTERLY RETENTION HONOR ROLL FOR FIRST QUARTER FY06!

Story and Photo by PSC(SW/AW) Christopher T. Stone NCTAMS PAC

ownsizing, individual augmentations, extended deployments, multi-taskings and revised sea shore rotations! Not every recruiter and command career counselor's words of choice. It has become a challenge to try and keep good Sailors to stay Navy. This, however, did not discourage the retention team and leadership of Naval Computer and Telecommunications Area Master Station, Pacific as they took on this challenge, making the retention honor roll for the first time in more than six years.

The retention honor roll is the Navy's way of recognizing commands that have met or exceeded Navy retention benchmarks. This program looks at retention statistics in separate categories that include Zone A or first term Sailors with six or less years of service, Zone B Sailors with 6 to 10 years of service and Zone C career Sailors with 10 to 14 years of service.

Each quarter, fleet program managers tabulate retention data based on transactions occurring during the reporting period. Commands that meet or exceed these retention standards are listed on the Retention Honor Roll and receive permission to fly the honor roll pennant.

NCTAMS PAC Retention Statistics for 1st Quarter FY06 include:

NCTAMS PAC STATS
Zone A: 100.0%
Navy goal: 53.0%
Zone B: 66.6%
Navy goal: 64.0%
Navy goal: 85.0%

"Our departmental and divisional career counselors played a major role in our increased retention numbers. Their efforts in educating and counseling our Sailors by conducting career development boards has greatly boosted our commands overall career information awareness!" stated Navy Career Counselor 1st Class Kenneth Gerig.

As NCTAMS PAC proudly raised the pennant behind the quarterdeck, the commanding officer gave credit to all NCTAMS PAC personnel from the newest Sailor all the way to the most senior officer on board. CAPT Jim Donovan stated, "Retention is always a combined team effort from the entire command. From the overwhelming support given from the senior leadership to our first term Sailors who educate and pass on knowledge about all the positive reasons to Stay Navy."



NCC(SW) Johannes Gonzalez and NC1(SW) Kenneth Gerig proudly display the NCTAMS PAC Retention Honor Roll Penant. (From left to right in the background) are the Command Master Chief CMDCM (SW/AW) Scott Teves, Chief Staff Officer CDR Joe Spegele, and Commanding Officer CAPT Jim Donovan.



Decorations and Special Recognition

NIOC NORFOLK



Navy and Marine Corps Achievement Medals

CWO3 Timothy Sullivan CTTC Melvin Alston CTM1 Michael Carroll CTO1 Matthew Mazurek CTN2 Mechelle Krecota CTN2 Melinda Lee CTR2 Robert Lloyd CTR2 Joseph Oktela IS2 Evelyn Smith CTR2 Angela Jones

ADVANCEMENTS Petty Officer First Class

IT2 William Carroll ET2 Thai Chau CTT2 Nicolette Hensley CTA2 Angela Hilliard CTN2 Melinda Lee

Petty Officer Second Class

IT3 Aaron Bowling CTN3 Christopher Conway CTA3 Roberto Duarte-Santiago IT3 Mandy Ellisishikawa ET3 Michael Harmon CTN3 Brannon Howard CTN3 Jonathan Kent CTN3 Adam Overman JO3 Jesus Uranga

Petty Officer Third Class

CTTSN Monica Cook CTMSN Kevin Edwards CTTSN Antwan Howell CTASN Ricardo Lopezortiz CTASN Ryan Nixon

NCTAMS LANT REGION



Meritorious Service Medal

CDR Gretchen Herbert



Outstanding Volunteer Service Medal

ETC John Meyer ET2 Love Harris



Meritorious Civilian Service Award

Georginia Fuller



Navy and Marine Corps Commendation Medals

LT Clinton Davis LT Brian Boone LTJG Jimmie Nelson LTJG Mark Atkinson LTJG Robinson Acosta LTJG Todd Lombard CWO4 Fred Eshleman CWO3 Fermin Aque CWO3 Narcel Hermosura CTO1 Jeremy Sellen ITCS Kevin Ratcliffe ITC Patrick Walker ITC Garroy Thomas ITC Howard Fuller ITC James Lewis ITC Bobby Lazenby IT1 Kenneth Strong IT1 James Powers IT1 Kenneth Strong



LT Duane Foster

Navy and Marine Corps Achievement Medals

LTJG Scott Polinkas CTTC Ricardo Alonzo ITC Richard Garza **CEC Michael Cortez** IT1 Scott Horne IT1 Wanda Boyd IT1 Vickie MimsHarris IT1 Clovis Calloway IT1 James Davis IT1 Lawrence Morgan IT2 Michelle Watson IT2 Michael Carter IT2 Jeremy Gatbonton IT2 Esteban Angeles IT2 Elizabeth Favorite IT2 Crystal Brotmeyer ET2 Love Harris IT2 Matthew Moseley IT2 Brian Panelo

IT2 Brian Porch ET2 David Gonzales IT2 April Buker IT2 Corey Nugent IT2 Timitra Easton IT2 Christien Giner IT2 Nahshon Myers IT2 Kadesha Perry

ET2 Lehvy Davis ET2 Richard Handzo ET2 Michael Malone ET2 Petra McNutt IT1 Micheal McCaskill IT1 Antonio Sedwick IT1 Michael Sheppard IT1 Shawn Bighum IT1 Radni Jerrell IT1 Raymong Odum IT1 Jonathan Ewars IT1 Terrence Andrews IT1 Sheryl Benitez IT1 Laila Salaam IT1 Rosemary Monroe IT1 Omar Abdi IT1 Christopher Garcia CTO1 Rochelle James ET1 Robin Mogan ET1 Douglas Hampton ET1 Gerardo Delosantos IT2 Althea McCalla IT2 Jonathan Flores IT2 Pamela Lenhard IT2 Kimberly Liston)

IT2 Tammy Miller

IC2 Javan Smith

CE2 Hudis Hamilton

ET3 Eric Netterstrom

ET3 Gason Gregor ET3 Anthony Lopez

ET3 Ted Hanshaw

ET3 Theresa Amos

IT2 Peatrice Anderson

Good Conduct Medals

IT1 David Duggar IT1 Norris Carter IT2 Kelly Pond ET1 Jon Leighton ET1 Teresa Gardner ET1 Jeremy Wares ET1 Wyndell Lee YN1 Steven Wyatt IT1 Ronald Zwieg IT2 Karvn Green CE2 John Davis ET3 Charles Custer

Flag Letters of Commendation

ET1 Lisset Lewis ET1 Nathaniel Gallant ET2 Jerrold Herring ET2 Ruel Dunn IT2 Ben Woolridge IT2 Bruce Camarillo

Letters of Commendation IT1 Jabir Kesler

IT1 Joel Ramirez IT1 Derek Ciapala IT2 Seneca Gully IT2 Johaan Saunders IT2 Deedra Reed IT2 Jennifer Pate IT2 Osvaldo Barrientos IT2 Nahshon Myers T2 Tiffany Winn) IT2 Broderick Isom IC2 Seth Featherston ET2 Lehvy Davis ET2 Michael Hart FT2 Scott Senecal ET2 Mark Morton **CE2 Robert Evans** CE2 Levi Gustafson CT3 Jennifer Foster ET3 Charles Custer FT3 Brandon Davis Kishan Thawerdas John Dias Salvatore Colimoro Ronald Barksdale

Letters of Appreciation

ET1 Gregory Althoff IT1 Joel Ramirez ET1 Teresa Gardner CE1 Daniel Buccat IT2 Tiffany Witherspoon IT2 Anthony Bullard ET3 Charles Custer IT3 Matthew Laird ITSN Justin Springstead ITSA Aarin Phillips Barbara Wilson

Incentive Awards Barbara Wilson

Archie Campbell Christopher Conway Steven Steelev Gary Shifflett Martin Shoffner **Evette Whatley** Teresa Snyder Elvira Ramirez Juliet Fiselstein LaShawn Parent Marlene Smith Sandra Vasko Merita Goodloe Georgina Fuller Giovanni Aspide Penny Tibbetts Donna Mills

Sailor of the Year

ET1 Gary Ullrich

Junior Sailor of the Year

IT2 Steven-Paul Lapid ET3 Contrenia Fluker

Sailor of the Quarter

CE1 Lawrence Episcope ET1 Christopher Wasson

IT2 Mary Dillion

ET2 Geoffrey Hays

SK2 Cassandra Johnson

CE2 Levi Gustafson

Junior Sailor of the Quarter

IT2 Georgia Brown

ITSN Russell Meyer

ET3 Vincent Kregear

ET3 Anthony Lopez

Blue Jacket Sailor of the Quarter

ET3 Jonas Degnan **CECN Bradley Hinton** ITSR Shawn Elequin

Civilian of the Year

Larry Hinton Maria Bacchiocchi Penny Tibbetts Beaudina Taper

Junior Civilian of the Year

Lillian Glover

Civilian of the Quarter

Teresa Snyder Ronald Barksdale LaShawn Parent Maria Bacchiocchi Darrell Griffith

Junior Civilian of the Quarter

Flyira Ramirez

Time-Off Awards

Marjorie Elliott Kevin Maker Micheal Hawkins Danny Matthews Lisa Sievers Janice Fitzpatrick Ronald Barksdale

Reenlistments

ITC Early Henderson

ITC George Potak

IT1 Lawrence Morgan

IT1 Monica Tipton IT1 Geoffrey Sisk

IT1 Jabir Kelser

IT1 Burnis Austin

IT2 Chi Ho

IT2 Johnathan Flores IT2 Justin Hinkle

IT2 Betina Brockamp

EN2 Michelle O'Bryant

ET2 Quintin Ross

ET2 William Raez

IT2 Corey Nugent

IT2 Thomas Johnson

IT2 Christopher Traver

IT2 Michael Frederick

IT2 Sakita Trammell

IT2 Brendan McLaughlin

IT2 Jean-Claude Riche

IT2 Andrew Pruitt

IT2 Greg Charles IT2 Lakita Young-Wallace

IT2 Timitra Easton

IT2 Imelda Hill

IT2 Bruce Camarillo

IT2 Lydale Hyde

OS2 Eugene Triplet QM2 Christopher Dorner

CE2 Hudis Hamiliton

ET2 Mark Morton

IT3 Devin Wheeler IT3 Jacob Walters

Civilian Length of Service Awards

Everett Ishie, 30 years Sandra Gist, 30 years James Letempt, 30 years Ida Hathaway, 30 years Paul Vane, 25 years Cathy Matkin, 25 years Mario Rodriguez, 25 years Lorie Collins, 20 years John Butler, 20 years Kathleen Comitalo, 10 years

ADVANCEMENTS

ITCS Timothy Ruth ITCS Ernest Hoffman ITCS Kevin Ratcliff

Petty Officer First Class

ET1 Michael Malone

ET1 Frazier Pellard

ITI Rashaun Daniels

ITI Fadesha Perry ITI Utip Akpallieng

ITI Terrance Green

ITI Fristina Mentgemery

ITI Michelle Watsen

ITI Gabriel Deyer

ITI Jamell Fields

MA1 Tanzania Garden

CE1 Michael Gestalsen

IT1 Fatisha Darns IT1 Fadesha Perry

ET1 Eeel Dean

ET1 Jerreld Derring

IT1 Timitara Easten

ET1 Christepher Caswell

IT1 Ferrest Frederick CE1 Laura Daslle

ET1 Rebert Navarra

ET1 Matthew Reed

IT1 William Glenn

IT1 Juan Alcala

IT1 Ethel Dildreth

IT1 Jasen Jacksen

Petty Officer Second Class

CTN2 Chelsea Deen

FT2 Stetan Darns

ET2 Michael Nightingale ET2 Dyren Scett

1T2 Rebert Duyense

1T2 Jessica Clegg

1T2 Len Garden

1T2 Kevin Scarbere 1T2 Vincent Tarantini

D52 Antheny Machulcz

D52 Amber Sanlerd

D52 Leisa Vickers

ET2 Charles Custer 1T2 Geerge Kevin III

ET2 Jee Castaneda

1T2 Jaceb Walters 1T2 Jered Adkins

1T2 Sammie Swancy

1T2 Adam Atkina

1T2 Keith Boswall

1T2 Ryan Gibson EN2 Elvince Julien

1T2 Faouzi Kawkab

1T2 Conrad Reckenhaus 1T2 Rudy Sandeval

1T2 Greg Schreluer

Petty Officer Third Class

ET3 Lemar Williams

0S3 Damaris Lepez

1T3 Patricia Dartnell

1T3 Raven Williams

1T3 Geuny Franca

1T3 Christepher Erasch

1T3 Magan Kight

1T3 Charles King

1T3 Ryan NcNair

1T3 Russell Meyer

1T3 Matthew Pettitt 1T3 Andre Rebertson

1T3 Allisen Rebinson

1T3 William Smith

1T3 Alicia Themes 1T3 Laura Timrnerman

1T3 Brian Wall

1T3 Garrett Webley

CE3 Baniel Rector YN3 Nathan Escott

1C3 William Martin

1T3 Brian Piscitelli 1T3 Andrew Cheguette

1T3 Nathaniel Cracker

ET3 Jettrey Barnett

1T3 Yady Brtigoza 1T3 Krystle Bacchus

1T3 Russell Bartson

1T3 Jenniter Bouldin 1T3 Russell Bevies

1T3 Michael Dobey

1T3 Tittany Sandoval

1T3 Bareg Wallace 1T3 Allysa Williams

1T3 Samantha Wright

1T3 Jenniter Bader

1T3 Samuel Lee 1T3 Nicholas Layton



(Left to Right) IT2 Christien P. Giner receives a silver dollar from newly promoted, ENS Miguel A. Torres at NCTAMS, Atlantic Det., Rota, Spain, following the returning of his first salute as a Naval officer. The former chief was selected under the FY-06 LDO program and will bring more than 16 years of enlisted experience to his next command. Torres' next assignment will be as the communications officer aboard the USS San Antonio (LPD 17). Official U.S. Navy Photo

DEPARTMENT OF THE NAVY

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